

Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

[illegible]

5-140034

Project No. 02AH29 Project Name *CHESTER MONITORING STUDY* *90101A*
AIR 20020035 *ARRIVAL DATE: 2/21/2002* *DEB DATE 3/14/2002*

Sampler
mike murphy

Cooler ID 1 **Page** 5-140034

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29DO1	DO1	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340139 1 to 1

Bottle No. 1 **Parameter**
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO1	SO1	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340138 1 to 1

Bottle No. 1 **Parameter**
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO2	SO2	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340140 1 to 1

Bottle No. 1 **Parameter**
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO3	SO3	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340141 1 to 1

Bottle No. 1 **Parameter**
PM10

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2002 0035 CHESHIRE MONITORING
suspended particles

- ☒ Chain-of-Custody
- ☒ Analysis Request Form(s)*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
 - Analyst (s)
 - Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Grista 3-5-2002
Data Management Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: MAR 05 2002

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist** E.S.
Region 5 Central Regional Laboratory

To:

ttached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020035**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH29D01, 2002AH29S01, 2002AH29S02, and 2002AH29S03.**

MAR 05, 2002

Data Management Coordinator and Date Received

Date Transmitted: MAR 05, 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____/_____/_____
Received by and Date

Comments:

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is <u>e</u> stimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (<u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>e</u> stimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS <u>T</u> entatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
R	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
U	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 01/20/2002 LAB ARRIVAL DATE: 02/21/2002 DUE DATE: 03/14/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020035 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH29S01	GUIDING HANDS SCHOOL	0.0265 J			
2	2002AH29D01	GUIDING HANDS SCHOOL	0.0223 J			
3	2002AH29S02	RVHS	0.0166			
4	2002AH29S03	ADDAVILLE	0.0458			
DATE OF ANALYSIS			02/26-27/2002			
ANALYST			E.S.			

Reviewed by: FSA

Date: 3, 1, 2002

Data Set Number:	<u>20020035</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>02/27/2002</u>	Analyst:	<u>ES</u>
		Signature:	<u>E.S.</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 21, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6280092	2002AH29D01	5-340139
Q6280108	2002AH29S01	5-340138
Q6280109	2002AH29S02	5-340140
Q6280123	2002AH29S03	5-340141

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 02/26/2002 and was completed on 02/27/2002. No field sampler I.D. was provided for filters Q6280109 and Q6280123 (CRL sample I.D number 2002AH29S02 and 2002AH29S02.)

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

A small tear was observed in exposed filter Q6280108 (CRL sample I.D number 2002AH29S01). A small tear was also observed along one side of exposed filter Q6280092 (CRL sample I.D number 2002AH29D01). Use those results with caution. Suspended particle results for those samples could be biased low due to loss of particles or filter materials. A probable cause for those tears are activities related to removal of exposed filters from the individual sampling equipment in the field. Use the data with caution.

Exposed filter Q6280109 and Q6280123 (CRL sample I.D number 2002AH29S02 and 2002AH29S03) had no tear or holes. The results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

Office of Enforcement

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5-140034

Project No. 02AH29 Project Name CHESHIRE MONITORING STUDY 90101A
AIR 20020035 ARRIVAL DATE: 2/21/2002 DUE DATE 3/14/2002

Sampler
mike murphy

Cooler ID 1 Page 5-140034

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29DO1	DO1	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340139 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO1	SO1	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340138 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO2	SO2	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340140 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH29SO3	SO3	20/01/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340141 1 to 1

Bottle No. 1

Parameter
PM10

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 01/20/2002 LAB ARRIVAL DATE: 02/21/2002 DUE DATE: 03/14/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020035 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH29S01	GUIDING HANDS SCHOOL	0.0265 J			
2	2002AH29D01	GUIDING HANDS SCHOOL	0.0223 J			
3	2002AH29S02	RVHS	0.0166			
4	2002AH29S03	ADDAVILLE	0.0458			
DATE OF ANALYSIS			02/26-27/2002			
ANALYST			ES			

Reviewed by: FAH Date: 3/1/2002

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group	Page _ of _	

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020035 Facility: CHESTIRE MONITORING STUDY
Parameter: PM 10 CRL SOP: ALG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E. S. Peer Reviewer: FAA
Date: 3/1/02 Date: 3/1/2002
Comments Attached? (Y/N) N

Data Set Number:	<u>20020035</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>02/27/2002</u>	Analyst:	<u>ES</u>
		Signature:	<u>E.S.</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 21, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

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Q6280108	2002AH29S01	5-340138
Q6280109	2002AH29S02	5-340140
Q6280123	2002AH29S03	5-340141

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 02/26/2002 and was completed on 02/27/2002. No field sampler I.D. was provided for filters Q6280109 and Q6280123 (CRL sample I.D number 2002AH29S02 and 2002AH29S02.)

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

A small tear was observed in exposed filter Q6280108 (CRL sample I.D number 2002AH29S01). A small tear was also observed along one side of exposed filter Q6280092 (CRL sample I.D number 2002AH29D01). Use those results with caution. Suspended particle results for those samples could be biased low due to loss of particles or filter materials. A probable cause for those tears are activities related to removal of exposed filters from the individual sampling equipment in the field. Use the data with caution.

Exposed filter Q6280109 and Q6280123 (CRL sample I.D number 2002AH29S02 and 2002AH29S03) had no tear or holes. The results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT

PM10

Parameter: Suspended Particles

Data Set Numbers: 20020035- 20020040

Date of Analysis 02/26-27/2002

Analyst: ES

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/- 0.0005 g		
1.0000	1.0001	-0.0001
2.0000	2.0001	-0.0001
5.0000	4.9998	0.0002

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6280087	2002AH30S02	02/27/02	Analyst 1	4.3952
Q6280087	2002AH30S02	02/27/02	Analyst 2	4.3954
Differences (Limit +/- 5 mg).....				-0.0002
Q6280004	2002AH30S03	02/27/02	Analyst 1	4.3804
Q6280004	2002AH30S03	02/27/02	Analyst 2	4.3807
Differences (Limit +/- 5 mg).....				-0.0003

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Data set Number 20020035											
Q6280108	2002AH29S01	01/20/02	Guiding Hands School	3013	19.65		0.00	4.3688	4.3953	0.0265	ERR
Q6280092	2002AH29D01	01/20/02	Guiding Hands School	3012	18.75		0.00	4.3409	4.3632	0.0223	ERR
Q6280109	2002AH29S02	01/20/02	RVHS		18.85		0.00	4.3697	4.3863	0.0166	ERR
Q6280123	2002AH29S03	01/20/02	Addaville		18.20		0.00	4.3819	4.4277	0.0458	ERR

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt. DUP (g)	COMMENTS	FILT I.
Q6280088	4.3680		4.3880			Q628
Q6280087	4.3802		4.3952	4.3954		Q628
Q6280086	4.3774		4.4076			Q628
Q6280010	4.3762		4.3941			Q628
Q6280009	4.3611					Q628
Q6280008	4.3420		4.3370			Q628
Q6280007	4.3662		4.3701			Q628
Q6280006	4.3721		4.3692			Q628
Q6280005	4.3129		4.3332			Q628
Q6280004	4.3647		4.3804	4.3807		Q628
Q6280003	4.3563		4.3715			Q628
Q6280002	4.3415		4.3532			Q627
Q6280001	4.3437		4.3574			Q627
Q6280000	4.3727		4.3816			Q627
Q6279999	4.3639					Q627
Q6279998	4.3384					Q627
Q6279997	4.3703		4.3812			Q627
Q6279996	4.3715					Q627
Q6280093	4.3732					Q627
Q6280094	4.3557					Q627
Q6280095	4.3828					Q627
Q6280124	4.3725					Q627
Q6280125	4.3467					Q627
Q6280123	4.3819		4.4277	4.4281		Q627
Q6280092	4.3401	4.3409 ES	4.3632		SMALL TEAR	

FILTER I.D.	TARE Wt. (g)	DVP Wt. (g)	EXPOSED Wt. (g)	EXPOSED Wt. DVP (g)	COMMENT
Q6280116	4.3620		4.3800		
Q6280115	4.3648		4.3810		
Q6280114	4.3400		4.3570		
Q6280113	4.3739		4.3913		
Q6280112	4.3880		4.4100		
Q6280111	4.3609		4.3833	4.3835 ^{FAA}	
Q6280110	4.3518	4.3520 ^{FAA}			
Q6280109	4.3697		4.3863		
Q6280108	4.3688		4.3953		SMALL TEAR
Q6280106	4.3779		4.3906		
Q6280107	4.3483		4.3621		
Q6280105	4.3499		4.3617		
Q6280103	4.3702		4.3848	4.3849 ^{FAA}	
Q6280104	4.3775	4.3780 ^{FAA}			
Q6280102	4.3347		4.3478		
Q6280101	4.3694		4.3889		
Q6280100	4.3655		4.3846		
Q6280099	4.3532		4.3723		
Q6280098	4.3514		4.3867		
Q6280096	4.3971	4.4245	4.4245		
Q6280097	4.3760		4.4052	4.4055 ^{FAA}	
Q6280032	4.3853		4.4118		
Q6280029	4.3775				
Q6280028	4.3587	4.3586 ^{FAA}			

General information

Standard weights, actual (g)

Balanced weights, balanced (g)

Mettler Toledo

5.00

5.0001

2/26/02 to

1.00

1.0001

S/N 1120181846

0.50

0.5001

2.00

1.9999

7.00

7.0001

SARTORIUS

(500^{mg} + 200 + 200 + 100)

1.0000

1.0001

S/N 37010119

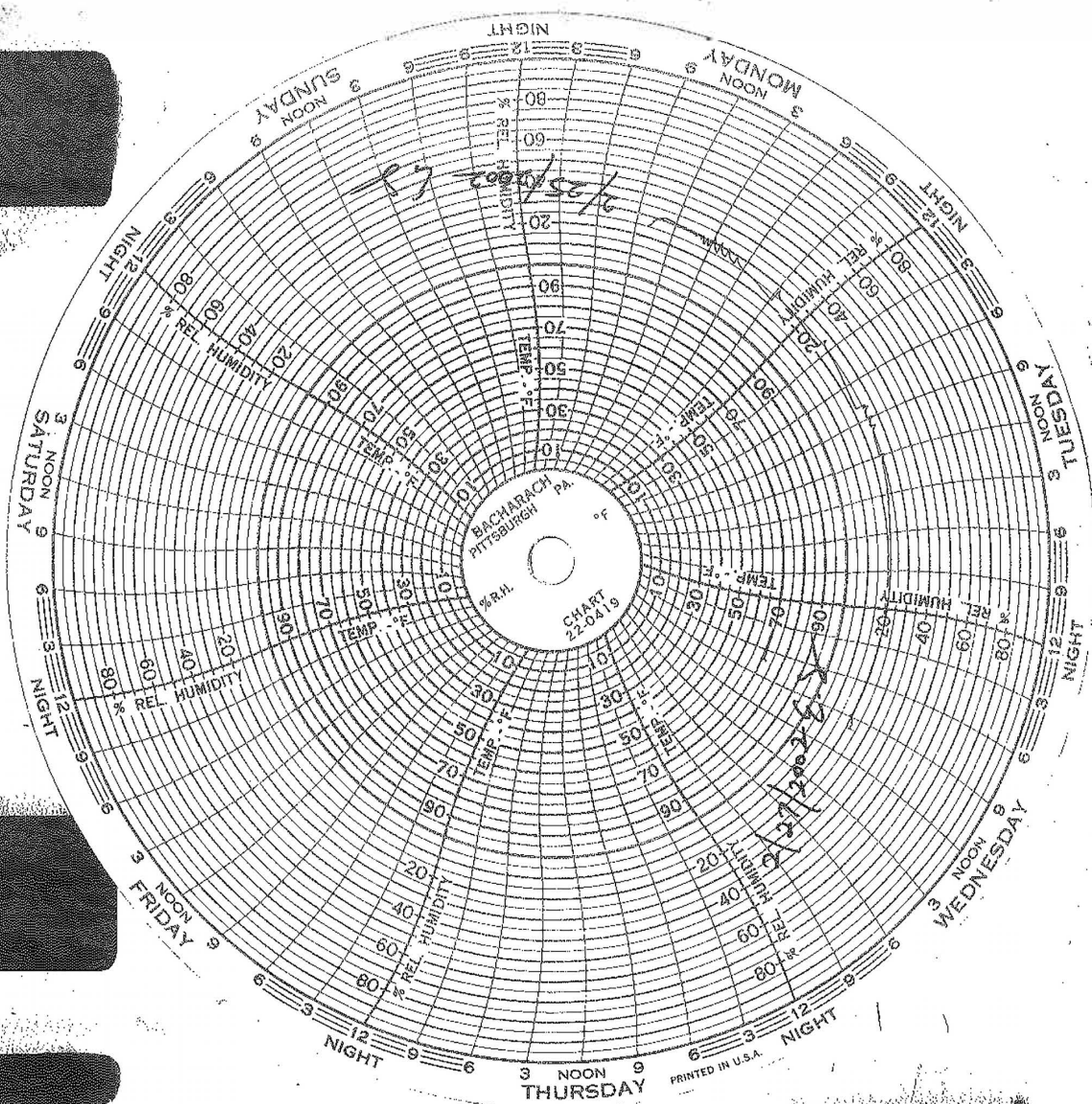
2.0000

2.0001

2/27/2002 E.S.

5.0000

4.9998



US EPA Region 5 Field Sample



5-140138-1

Parameters PM10

20020202

Preservative None S M M D B D
Sample ID 02AH29S01 X
Sampler Mike Murphy
Date 1-20-02

PM-10 ☒ SAROAD _____ OPERATOR OEPA DATE 1-20-02

TSP _____ SITE CHS# 3012 06280108

AVG. RECORDER RESP. 19.65 TEMP _____ C _____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m³/min TOTAL FLOW _____ m³ SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m³

COMMENTS: _____

Parameters PM10

2020035

Preservative None S M MD B D

Sample ID 02AH29D01 X

Sampler Mike Murphy

Date 1-20-02

SANOFI

OPERATOR OF SHIP

DATE 1-20-00

50

SITE G-115 # 3013

WVG RECORDER KESP.

100

THE NEW 3000

ELAPSED TIME 440 MINUTES

2000

mmh

MEAT

THE
BOOK
OF
JAMES

Prüfung

TOTAL FLOW

100

SAMPLE 1

100

ACTUAL

THE UNIVERSITY OF CHICAGO

NOTE
ARCHIVE
MS
100-100-100

COMET 13

Parameters PM10

Parameters PM10

Sample ID	02AH29S02	X
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Sample ID 02AH29S02

sampled Mike Murphy

Date 1-20-02

PM-10 ✓ SAPOAD _____ OPERATOR CEB DATE 1-26-02
TSP _____ SITE RHS # 06280107
AVG. RECORDER RESP. 13.65 TEMP _____ C _____ K FINAL WT _____ g
ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g
FLOW _____ m³/min TOTAL FLOW _____ m³ SAMPLE WT _____ g
STD _____ ACTUAL _____ PM-10 _____ ug/m³
COMMENTS: _____

US EPA Region 5 Field Sample



5-340141-1

Parameters PM10

2002035

Preservative None S M MD B D

Sample ID 02AH29S03 X

Sampler Mike Murphy

Date 1-20-02

PM-10 ☒ SAROAD OPERATOR DEPPA DATE 1-20-02

TSP SITE Adelle # QPC280123

AVG. RECORDER RESP. 13.2 TEMP C K FINAL WT g

ELAPSED TIME 1440 MINUTES PRESS mmHg INITIAL WT g

FLOW m/min TOTAL FLOW m SAMPLE WT g

STD ACTUAL PM-10 ug/m

COMMENTS: